

Action. Appendix A provides the version with markings to show changes made to the claims. Also for the Examiner's convenience, Appendix B is included, listing all pending and amended claims.

I. Status of the Claims

Claim 11 is canceled. New claim 17 is added and recites "An isolated polynucleotide which encodes MTase comprising a nucleotide sequence that hybridizes under stringent conditions to an exon of SEQ ID NO:1, wherein the exon is selected from the group consisting of exon 4, exon 5, exon 6, exon 7, and exon 8 as shown in Figure 1." New claims 18-22 recite exons 4-8. Support for stringent hybridization conditions is found at page 16, lines 10-22; and page 28, lines 8-22. Stringent hybridization is carried out in 1% SDS, 2 X SSC, 10% dextran sulfate, and 50% deionized formamide at 42°C; followed by three washes at room temperature for five minutes in 2 X SSC, a wash at 65°C for twenty minutes with 2 X SSC and 0.1% SDS, and a wash at room temperature for twenty minutes with 0.2 X SSC and 0.1% SDS. The subject matter of the amended claims, specifically exons 4-8, was first disclosed in U.S. patent application 08/176,855 (the '855 application), filed December 23, 1993. Support for exons 4-8 is found at Figure 1. These amendments add no new matter.

II. Priority of the Application

The Examiner correctly noted that an error was present in the priority information submitted with the present application. Applicants have submitted a petition and the required fee to correct the priority. A copy of the petition is enclosed. In view of submission of the petition and payment of the fee, Applicants believe that priority will be extended back to the earliest related applications. Thus, the earliest effective priority date for the application is December 29, 1993.

The Examiner also alleges that, with respect to claim 11, the claim is awarded priority to the filing date of March 26, 1997 for the invention of a nucleic acid sequence having SEQ ID NO:1. Claim 11 is now cancelled.

With respect to the amended claims 17-22, all claim elements are supported by the disclosure of the earliest related application, i.e., the '855 application, filed December 23, 1993. Thus, "an isolated polynucleotide which encodes MTase" is disclosed at least in Examples VI and VII of the '855 application; the "stringent hybridization conditions" are disclosed at least in Example V of the '855 application; and exons 4-8 in Figure 1 of the present application are disclosed at least in Figure 1 of the '855 application.

Accordingly, the earliest effective priority date for the presently pending claims is December 29, 1993.

III. Amendments to the Specification

At the request of the Examiner, Applicants have amended the title of the application. The new title is "Nucleic Acids Encoding MTase." This amendment adds no new matter.

IV. Claim Objections

The Examiner objected to claim 11 because it depended on canceled claim 7. Claim 11 is now cancelled. In view of the above amendment, Applicants respectfully request that the objection on the basis of improper dependency be withdrawn.

V. Rejections Under 35 U.S.C. §112, Second Paragraph

The Examiner rejected claim 11 under 35 U.S.C. §112, second paragraph as allegedly indefinite for reciting the phrases "Sequence listing appended hereto as SEQ ID NO:1," and "peptide encoding fragments". Claim 11 is now cancelled. In view of the amendment, Applicants respectfully request that the rejection under 35 U.S.C. §112, second paragraph be withdrawn.

VI. Rejections Under 35 U.S.C. §102(b)

Claim 11 is rejected under 35 U.S.C. §102(b) as allegedly anticipated by Olopade *et al.*, PNAS 92:6489-6493 (1995).

To the extent the rejection applies to the amended claims, Applicants respectfully traverse. In order to be considered prior art under 35 U.S.C. §102(b), a reference must be published more than one year before the earliest effective priority date of the application. Olopade *et al.* was not published before the earliest effective priority date for the claimed invention.

Olopade *et al.* was published in July 1995. As noted in Section II above, the subject matter of the amended claims was first disclosed in the '855 application, filed December 23, 1993. Applicants have petitioned to correct the claim of priority for the present application, making the filing date of the '855 application the earliest effective priority date of the claimed invention. Because Olopade *et al.* published more than one and one-half years after the earliest effective priority date of the present application, the reference is not properly cited as prior art.

In view of the above amendments and remarks, Applicants respectfully request that the rejection under 35 U.S.C. §102(b) be withdrawn.

VII. Rejections Under 35 U.S.C. §102(a)

Claim 11 is rejected under 35 U.S.C. §102(a) as allegedly anticipated by Nobori *et al.* PNAS 93:6203-6208 (1996). To the extent the rejection applies to the amended claims, Applicants respectfully traverse. In order to be considered prior art under 35 U.S.C. §102(a), a reference must be described in a printed publication before the invention by the applicant. Nobori *et al.* published in June 1996. As described above, Applicants first disclosed the subject matter of the claimed invention on December 23, 1993 in the '855 patent, a document to which priority is claimed. Because Nobori *et al.* was published two and one-half years after the earliest priority date for the invention, the reference is not properly cited as prior art. In view of the above

amendments and remarks, Applicants respectfully request that the rejection under 35 U.S.C. §102(a) be withdrawn.

VII. Rejection for Alleged Double Patenting

Claim 11 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7 and 9 of U.S. Patent No. 5,942,393. Because claim 11 is now canceled, Applicants believe the rejection for double patenting is now moot. In view of the above amendments and remarks, Applicants respectfully request that the rejection under the judicially created doctrine of obviousness-type double patenting be withdrawn.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at 415-576-0200.

Respectfully submitted,


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APPENDIX A

VERSION WITH MARKINGS TO SHOW CHANGES MADE

11. (Cancel) A recombinant expression vector containing peptide encoding fragments of the polynucleotide of Claim 7 comprising the nucleotide sequence of SEQ ID NO:1.

17. (New) An isolated polynucleotide which encodes MTAsE comprising a nucleotide sequence that hybridizes under stringent conditions to an exon of SEQ ID NO:1, wherein the exon is selected from the group consisting of exon 4, exon 5, exon 6, exon 7, and exon 8 as shown in Figure 1.

18. (New) The isolated polynucleotide of claim 17, wherein the exon is exon 4.

19. (New) The isolated polynucleotide of claim 17, wherein the exon is exon 5.

20. (New) The isolated polynucleotide of claim 17, wherein the exon is exon 6.

21. (New) The isolated polynucleotide of claim 17, wherein the exon is exon 7.

22. (New) The isolated polynucleotide of claim 17, wherein the exon is exon 8.